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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KHATRI, PRASHANT J

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/597,951	<b>Applicant(s)</b> IKEDA ET AL.	
	<b>Examiner</b> PRASHANT J. KHATRI	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 27-46 is/are pending in the application.
- 4a) Of the above claim(s) 27-32 and 36-39 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-35 and 40-46 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

In response to Amendments/Arguments filed 10/13/2009. Claims 27-46 are pending. Claims 1-26 were cancelled. Claims 27-46 were added as new.

#### ***Election/Restrictions***

1. Newly submitted claims 27-32 and 36-39 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the previous claims dated 8/14/2006 were drawn towards article claims and the present claims 27-32 and 36-40 are drawn towards process claims

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 27-32 and 36-40 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

#### ***Specification***

2. The amendment filed 10/12/2009 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the specification is amended to explicitly support the disclosed method claims. Further, it is not clear

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where in the original specification where it is disclosed that certain regions will contain lesser or greater amounts of ink than other regions.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 41-46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation of the adjacent ink pattern portions containing greater and lesser amounts of ink is not found within the original specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 33-35 and 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 33 and 40 are drawn towards claims that were non-elected by original presentation which are presently withdrawn. As such,

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the claims are deemed indefinite. Further, claims 34 and 35 are rejected as they are dependent on claim 33.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 33-35, 40-44, and 46 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Atake et al. (***JP 05-016598***) with evidence from Daunheimer (***US 4029831***) in view of Meisenberg et al. (***WO 00/32666***). Examiner notes that the US Patent No. 6653394 published November 25, 2003 is used as a translation. It is further noted that any Application submitted as a National Stage Application must be translated into English as filed. *See MPEP 1893.01(d)*.

9. Atake et al. disclose a molded article with specular gloss. Concerning claims 41 and 44, Atake et al. disclose an article comprising a substrate having an ink pattern disposed upon said substrate and a radiation ionizing hardening resin disposed upon said ink pattern and interacting with said ink pattern (***Claims 1-6; para. 0005-0010***). The radiation ionizing hardening resin is comprised of a mixed resin containing a pre-polymer or oligomer based having an unsaturated bond and a photoinitiator (***para.***

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**0016-0019**). The ink is comprised of an UV curing inhibitor and/or absorbent and pigment wherein the amount of pigment found within the composition controls the hardening of the radiation ionizing hardening resin (**para. 0014**). The printed layer of ink is in the form of a pattern, figure, character, sign, and the like (**para. 0013**). Further, as evidenced by Daunheimer, the amount of UV curing inhibitor controls the curing rate which would create regions that cure at a different rate than the other regions resulting in surface regions of different gloss (**Daunheimer; abstract; col. 4, lines 7+**). Given that the broad disclosure "ink pattern" Atake would include the "ink pattern" presently claimed and composition of said ink which the composition meets the present limitation of absorbing the radiation ionizing hardening resin to control level of hardening and the above disclosure of the level of curing corresponds to varying gloss levels, it is clear that the above disclosure would meet the instant limitation of areas containing ink and areas not containing ink resulting in differing amounts of absorbed hardening resin.

Regarding claim 42, given that the disclosure of Atake meets the limitations of areas having high gloss and low gloss controlled by amount resin absorbed.

Concerning claim 40 and 46, it is noted that no further layer is disposed upon the radiation ionizing hardening resin layer. Regarding claims 33-35 and the limitation "being applied to said surface by transfer under water pressure", it is noted that the resultant articles are product-by-process and treated as such. It is noted the "[E]ven though product-by-process claims are limited by and defined by the process; determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-

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process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process”, *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Further, “although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product”, *In re Marosi*, 710 F.2d 798, 802, 218, USPQ 289, 292 (Fed. Cir. 1983). See *MPEP* 2113. However, Atake is silent to the “non-solvent” nature of ionizing-radiation curable resin and matting agent.

10. Meisenberg et al. disclose a coating agent consisting of at least three components. Concerning the composition, Meisenberg et al. disclose a coating composition that can be used as a topcoat and is comprised of at least an oligomer, a crosslinking agent, and water and is UV curable (**abstract; col. 1, lines 36+**). The resultant composition contains only a small fraction of volatile organic solvents and is aqueous for the most part (**col. 2 bridged to 3, lines 65+; col. 1, lines 15+**). Given that Applicant considers the term “non-solvent” as inclusive of some levels of volatility but can be disregarded practically, Examiner takes the position that materials as disclosed by Meisenberg et al. would meet the present limitations of “non-solvent”. The oligomer is comprised of water-soluble or water-dispersible binders such as acrylate copolymers, unsaturated polyesters, and polyurethanes individually or as mixtures (**cols. 3-24**). It is further noted that the composition may include photoinitiators to form a UV-curable composition (**col. 3, lines 18+; col. 6, lines 24+; claim 19**). Regarding the presently claimed “matting component”, it is noted that an effect pigment can be

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added to the composition that includes silicas, talc, and the like (**col. 21, lines 14+**).

Given that silica and the like are known matting agents within the art and it is the Examiner's position that the phrase "effect pigment" would include and encompass the presently claimed "matting component", it is clear that Meisenberg et al. in combination with Atake meet the present limitations of claim 43. The resultant material is more environmentally friendly material and has improved weathering stability among other properties (**col. 1, lines 26+**).

11. However, note that while Meisenberg et al. do not disclose all the features of the present claimed invention, Meisenberg et al. is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely, an aqueous UV curable oligomeric topcoat in order to be more environmentally friendly and weathering stability and in combination with the primary reference, discloses the presently claimed invention.

12. All of the elements were known within the art. The only difference is a single disclosure containing all of the presently claimed elements. Atake et al. disclose a molded article with specular gloss. However, Atake et al. are silent to the presently claimed "non-solvent" nature of the ionizing radiation curable resin topcoat. Meisenberg et al. disclose a coating agent consisting of at least three components. Concerning the composition, Meisenberg et al. disclose a coating composition that can be used as a topcoat and is comprised of at least an oligomer, a crosslinking agent, and water and is



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UV curable. The motivation to combine the above references is drawn towards Meisenberg which disclose the composition is more environmentally friendly since the solution is largely aqueous and resulting in a coating that has improved weathering stability. Further, given that Atake et al. disclose an oligomeric-based material and Meisenberg et al. disclose an oligomeric-based material, it would have been obvious to one of ordinary skill in the art to substitute the ionizing-radiation curable resin in order to improve environmental aspects of the production.

13. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atake et al. (**JP 05-016598**) with evidence from Daunheimer (**US 4029831**) in view of Meisenberg et al. (**WO 00/32666**) as applied to claim 41 above, and further in view of Wypych (**Book**). Examiner notes that the US Patent No. 6653394 published November 25, 2003 is used as a translation. It is further noted that any Application submitted as a National Stage Application must be translated into English as filed. *See MPEP 1893.01(d)*.

14. Atake, Daunheimer, and Meisenberg disclose the above; however, prior art is silent to the use of carbon black as the opaque pigment found within the ink composition of Atake.

15. Wypych discloses carbon black as pigment for ink compositions in which the use of carbon black in creating tinted inks is known within the art as far back as 3000 B.C. (**p. 62-71**). Given that Atake discloses creating an opaque ink using pigments found in printing inks and Wypych discloses carbon black is used in printing inks, it is clear that

such materials are well-known within the art and would have been obvious to one of ordinary skill in the art to use.

### ***Response to Arguments***

16. Applicant's arguments, see pp. 12-13 and pp. 11-12, filed 10/12/2009 and 10/13/2009 respectively, with respect to the 35 USC 112, 2<sup>nd</sup> rejection of claims 1-5, 8, and 12-17 have been fully considered and are persuasive. The rejection of the above claims has been withdrawn. Examiner acknowledges cancellation of the above claims which render the previous rejections moot.

17. Applicant's arguments, see pp. 14-16 and pp. 12-14, filed 10/12/2009 and 10/13/2009 respectively, with respect to the 35 USC 102(b) rejection of claims 1-5 and 14 under Atake with evidence from Daunheimer and the 35 USC 103(b) rejection of claims 8, 12-13, and 15-17 under Atake with evidence from Daunheimer in view of Ohta have been fully considered and are persuasive. The rejections of the above claims have been withdrawn. Examiner acknowledges cancellation of the above claims which render the previous rejections moot. However, it is noted that Atake and Daunheimer are still used as 103(a) references as shown above. Regarding the Atake and Daunheimer references, it is noted that Applicant is arguing the method claims which were not present in the originally filed claims. As such, the method claims are not examined. Further, it is noted that Applicant has relied upon what is considered a "clear" translation for only the method claims and not for the previously and currently cited passages of the Atake reference for the article.

***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawaharada et al. (***US 20030108675***) discloses a similar hydraulic transfer method however is silent to a "non-solvent" coating upon the ink layer.

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PRASHANT J. KHATRI whose telephone number is (571)270-3470. The examiner can normally be reached on M-F 8:00 A.M.-5:00 P.M. (First Friday Off).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patricia L. Nordmeyer/  
Primary Examiner, Art Unit 1794

PRASHANT J KHATRI  
Examiner  
Art Unit 1794